

# Test Report No.10055785 10055789 002

## Appendix D: Radiated and Mains Spurious Emission Data

(File: 10055785 10055789 002AppendixD)

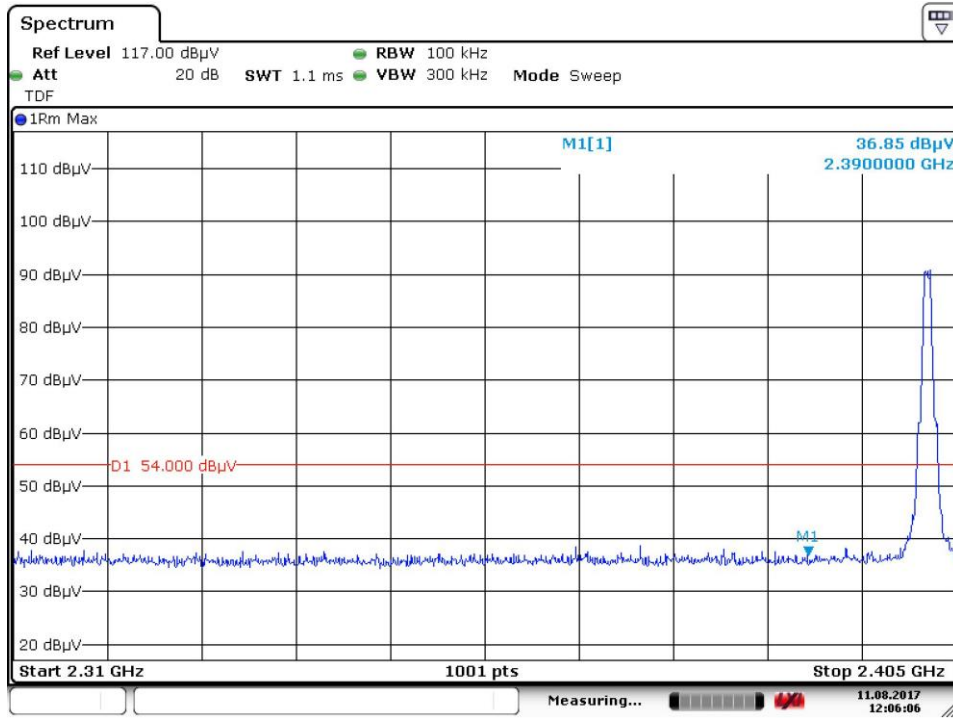
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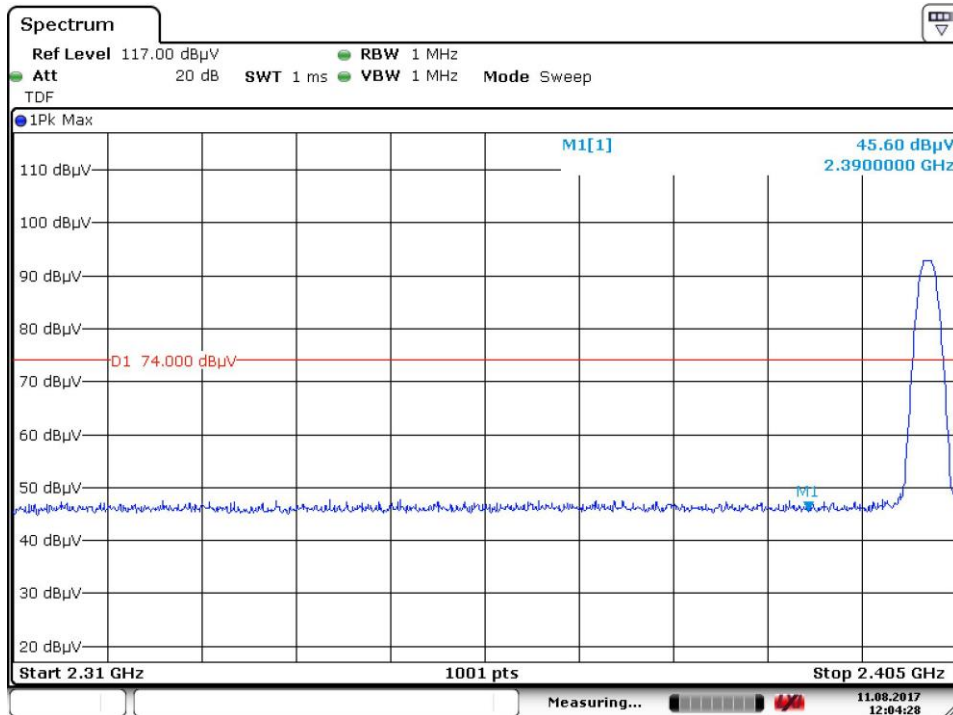
# Spurious Emissions, Band Edges, 2.35-2.5G

## Radiated Bandedge (GFSK)

### Low Channel (Hor)

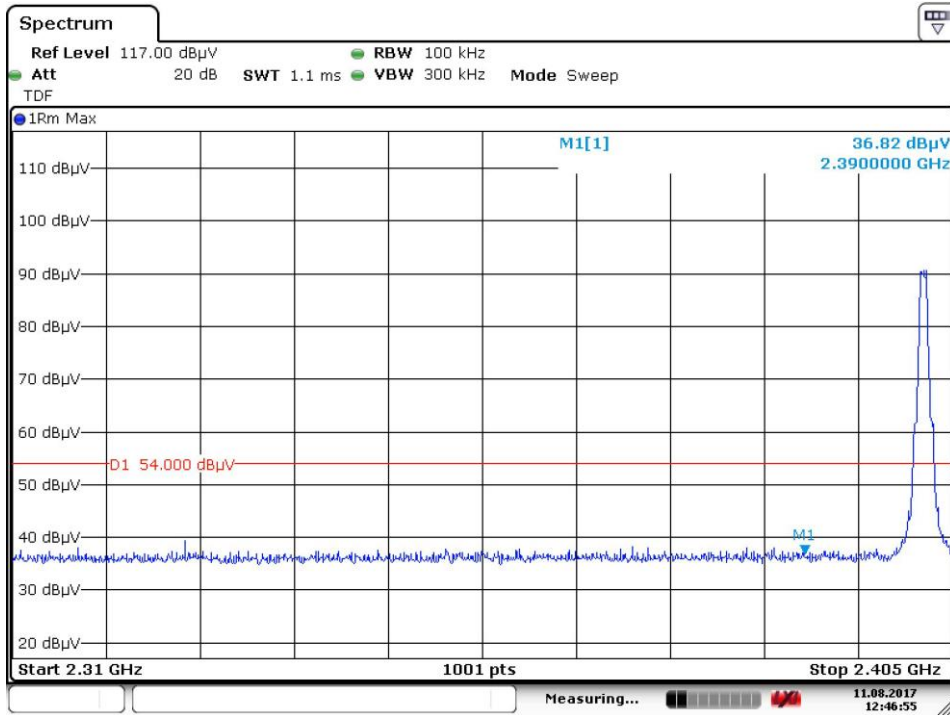


Date: 11.AUG.2017 12:06:06

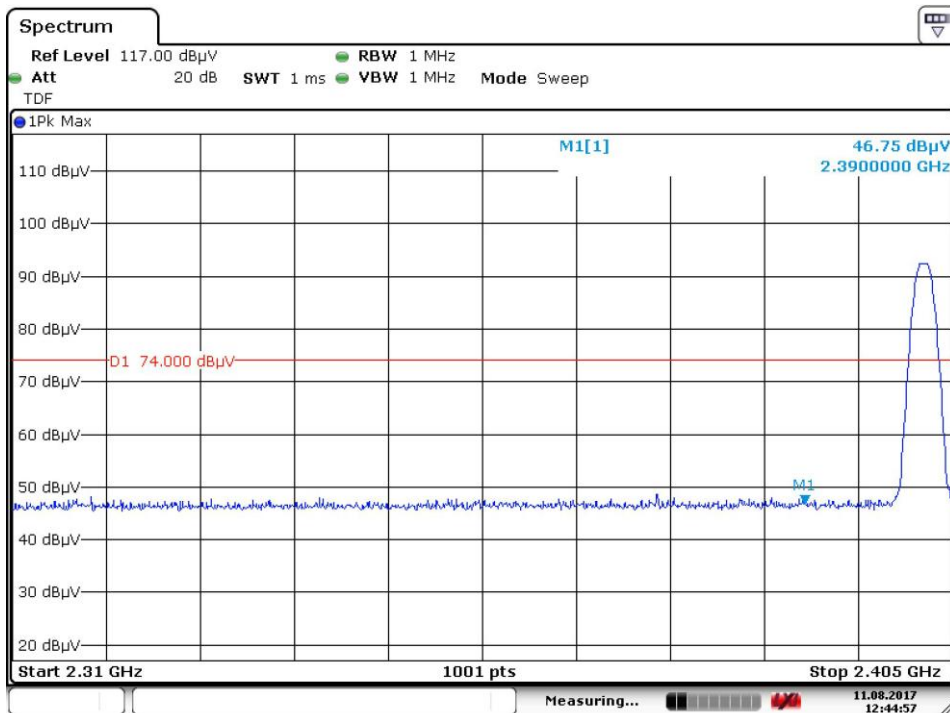


Date: 11.AUG.2017 12:04:28

# Low Channel (Ver)



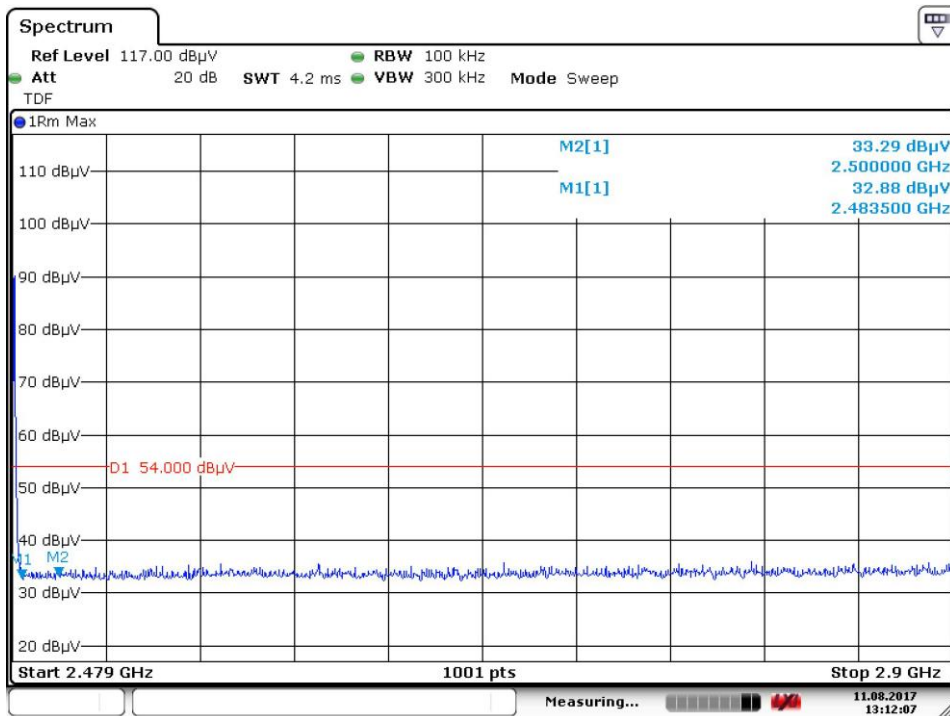
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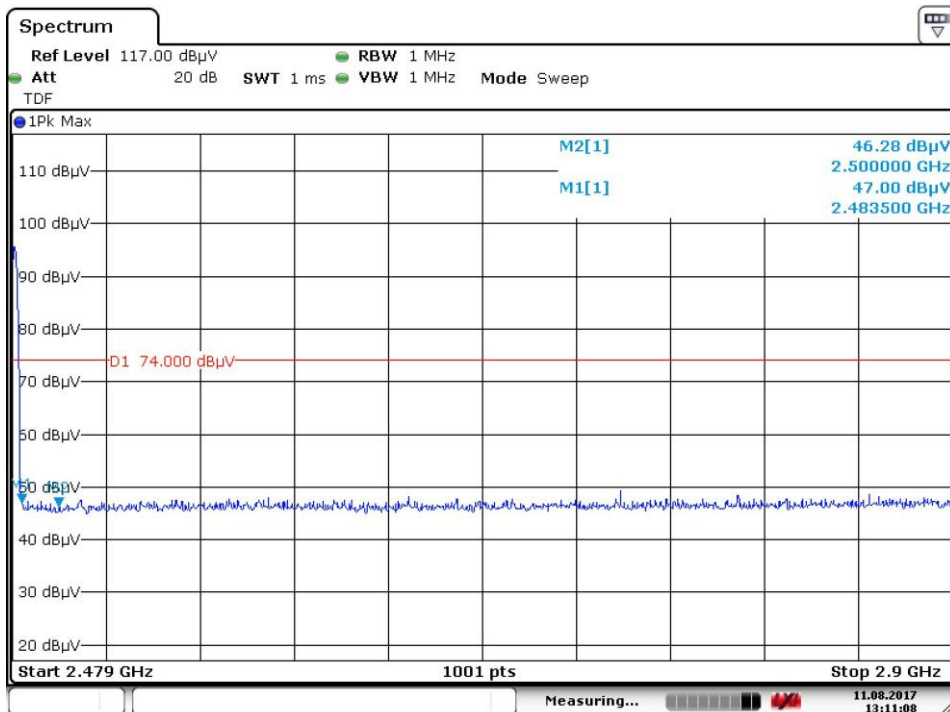
Date: 11.AUG.2017 12:44:58

# Radiated Bandedge (GFSK)

## High Channel (Hor)

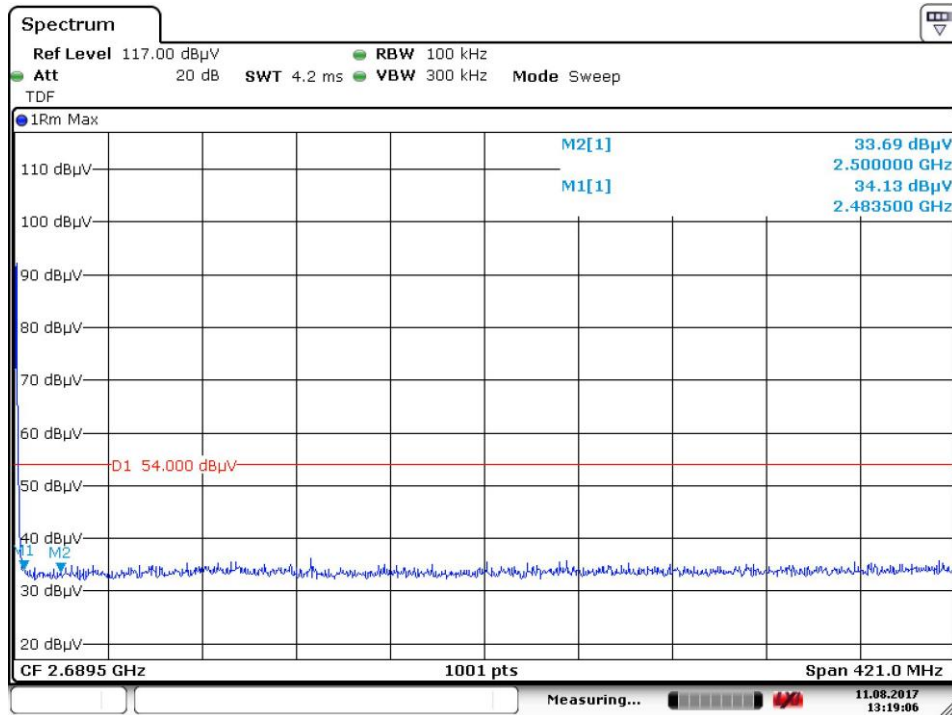


Date: 11.AUG.2017 13:12:07

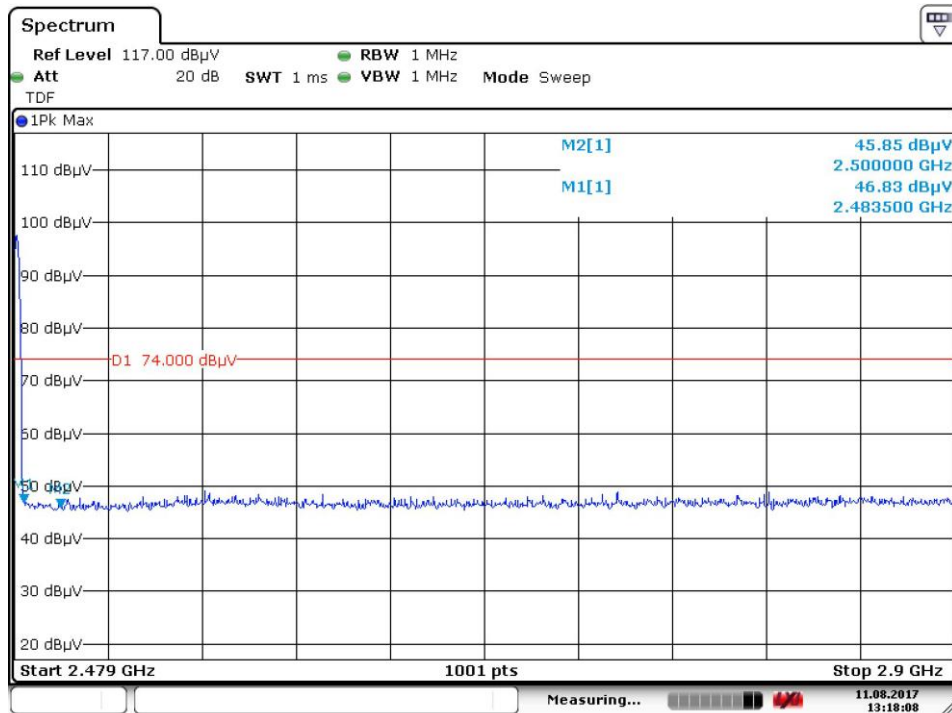


Date: 11.AUG.2017 13:11:08

# High Channel (Ver)



Date: 11.AUG.2017 13:19:07



Date: 11.AUG.2017 13:18:09

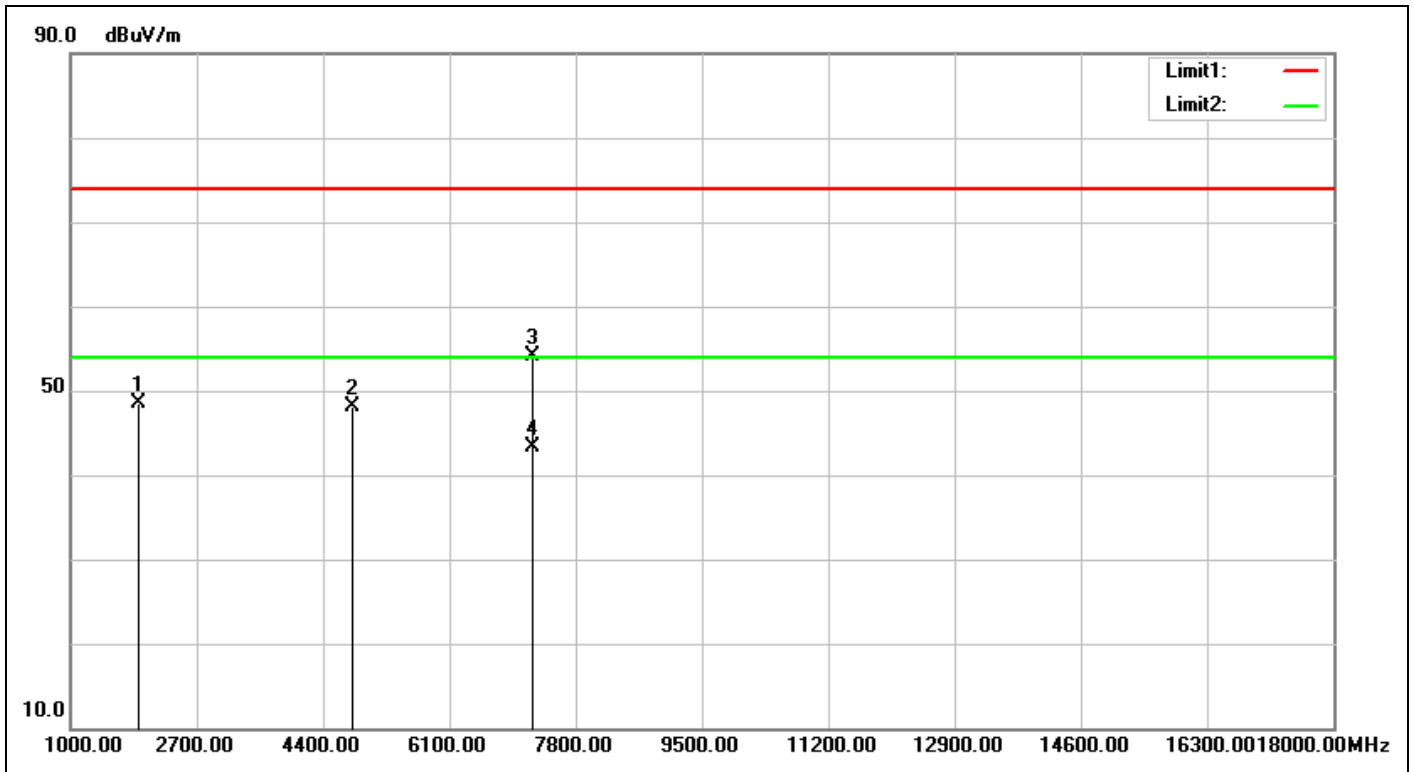
# Spurious Emissions, TX Mode, 1-18G



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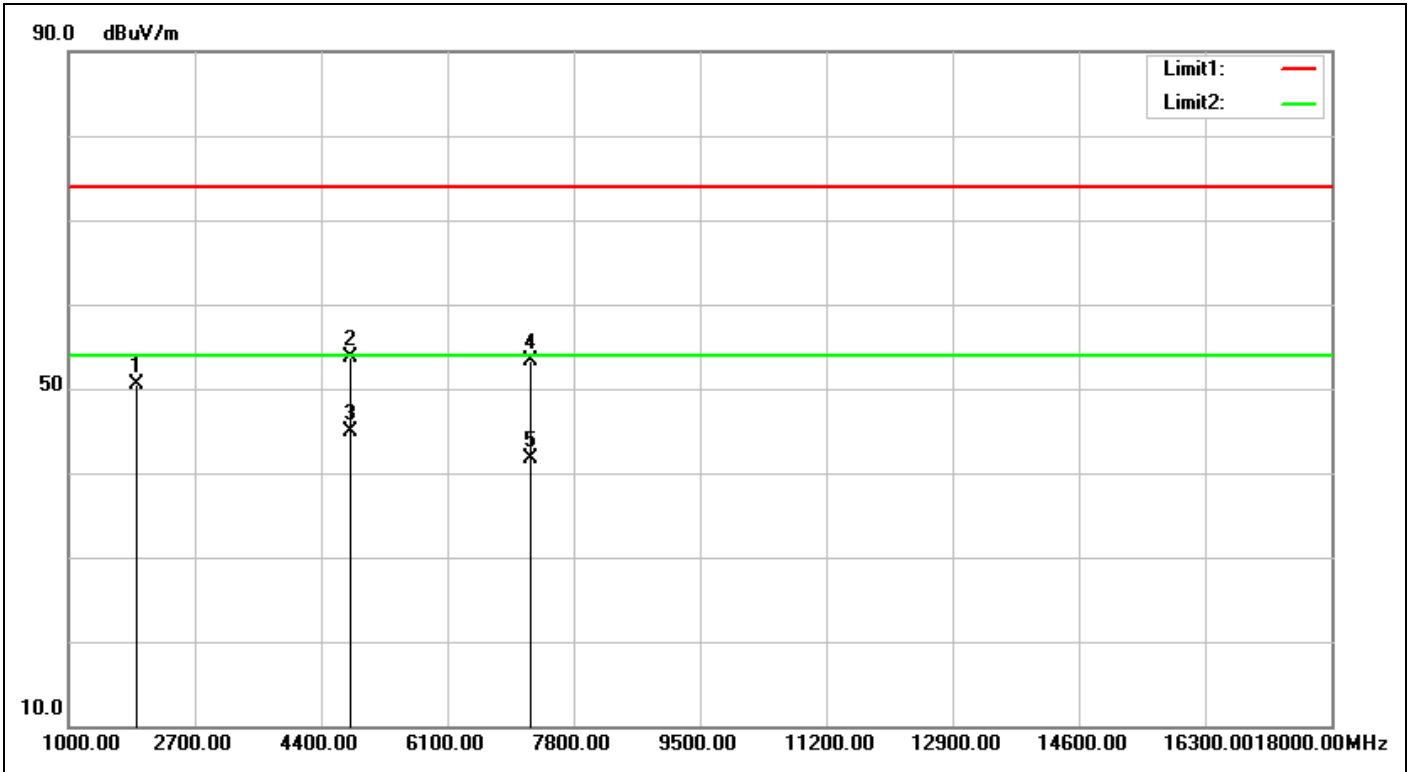
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



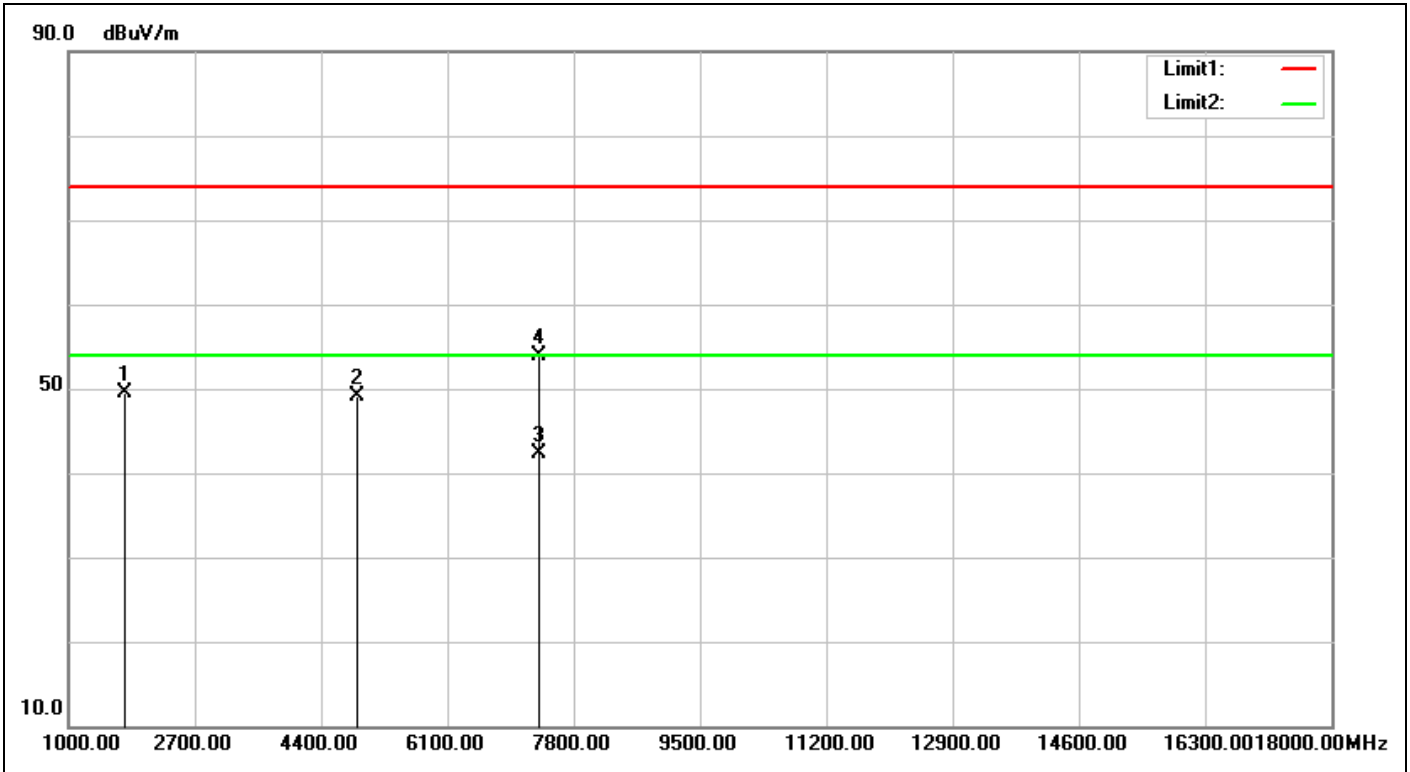
<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 09:42:27</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2402-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1918.000	-5.67	54.22	48.55	74.00	-25.45	peak	100	199	
2	4804.000	0.43	47.59	48.02	74.00	-25.98	peak	100	227	
3	7206.000	9.11	44.92	54.03	74.00	-19.97	peak	100	129	
4	7206.000	9.11	34.16	43.27	54.00	-10.73	AVG	100	129	



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 09:44:30</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2402-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

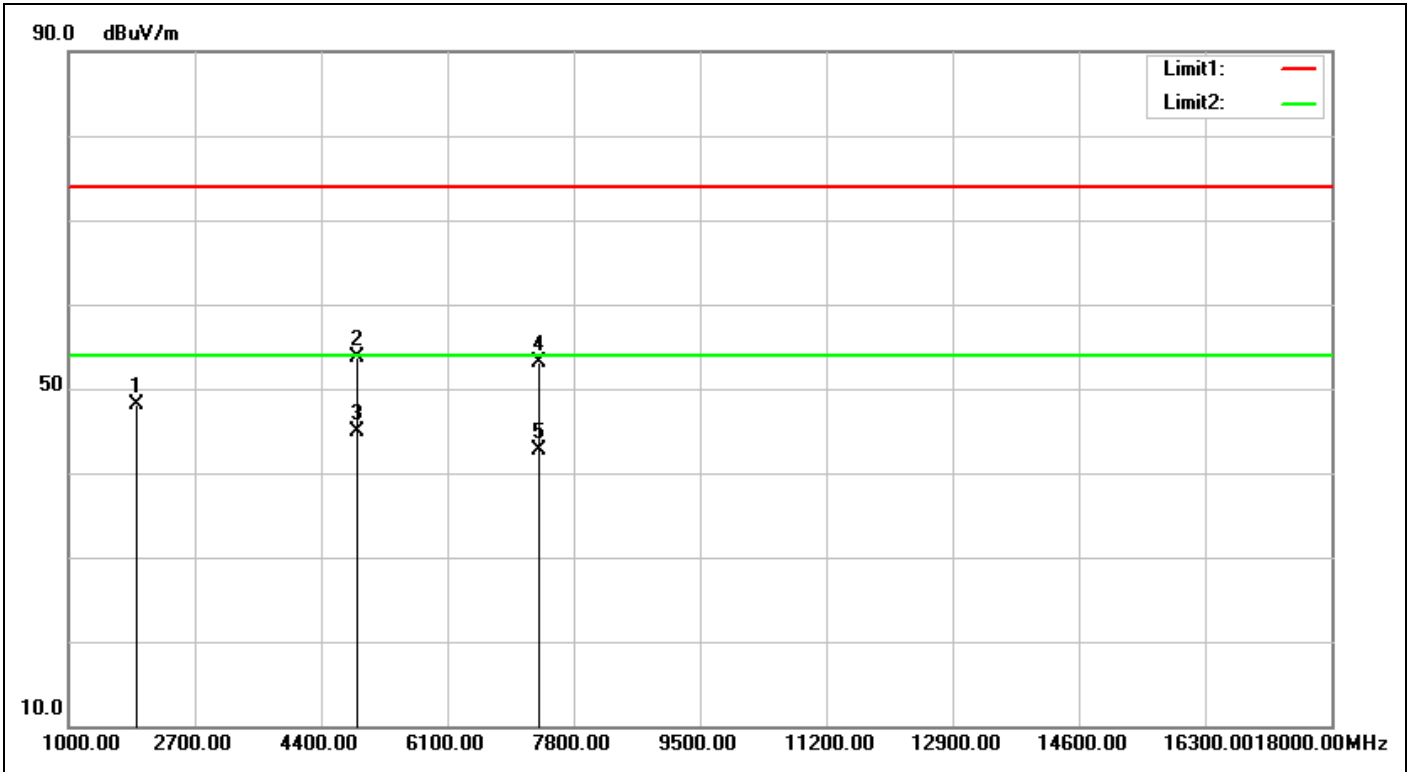
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1918.000	-5.67	56.23	50.56	74.00	-23.44	peak	100	234	
2	4804.000	0.43	53.32	53.75	74.00	-20.25	peak	100	300	
3	4804.000	0.43	44.55	44.98	54.00	-9.02	AVG	100	300	
4	7206.000	9.11	44.11	53.22	74.00	-20.78	peak	100	23	
5	7206.000	9.11	32.53	41.64	54.00	-12.36	AVG	100	23	



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 09:47:33</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

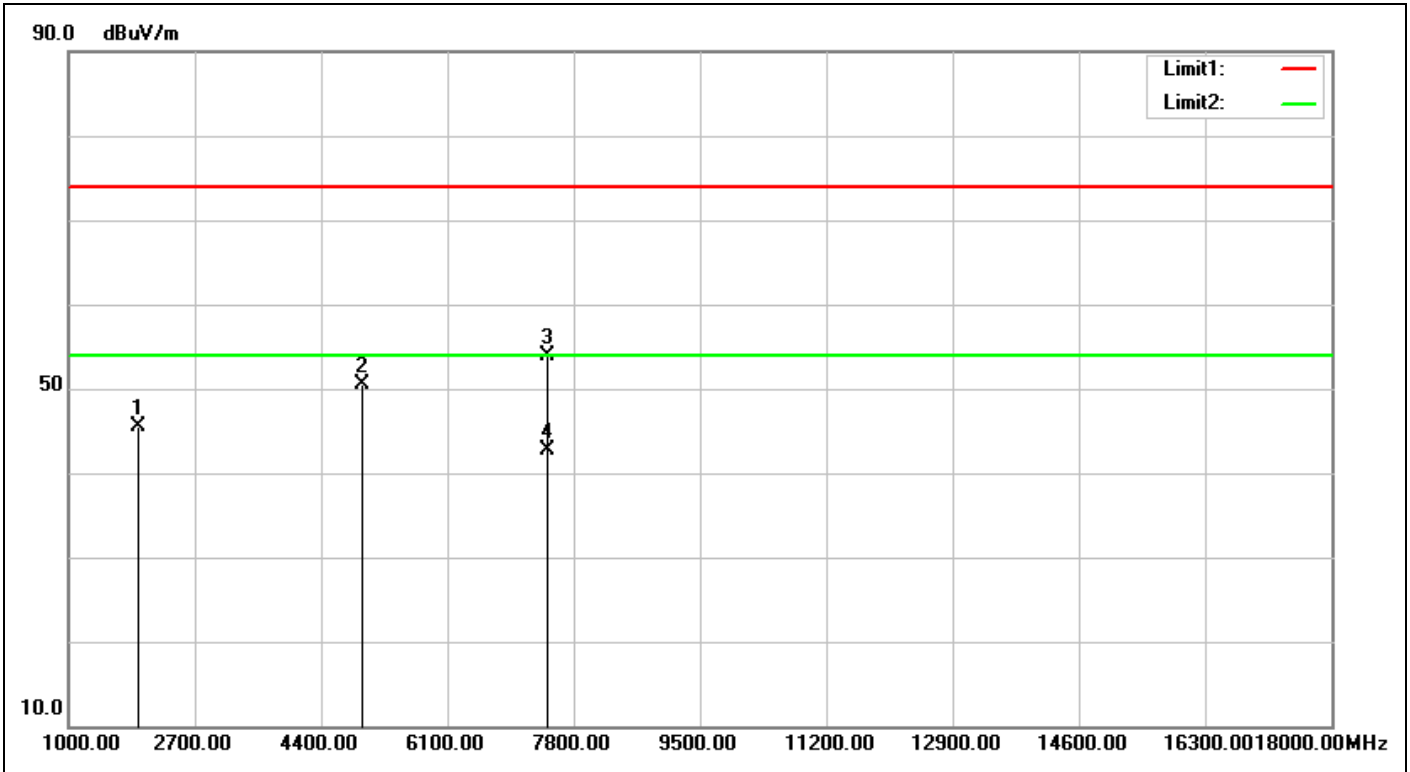
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1748.000	-6.92	56.41	49.49	74.00	-24.51	peak	100	180	
2	4880.000	0.66	48.40	49.06	74.00	-24.94	peak	100	105	
3	7320.000	9.45	32.91	42.36	74.00	-31.64	peak	100	136	
4	7320.000	9.45	44.39	53.84	74.00	-20.16	peak	100	136	





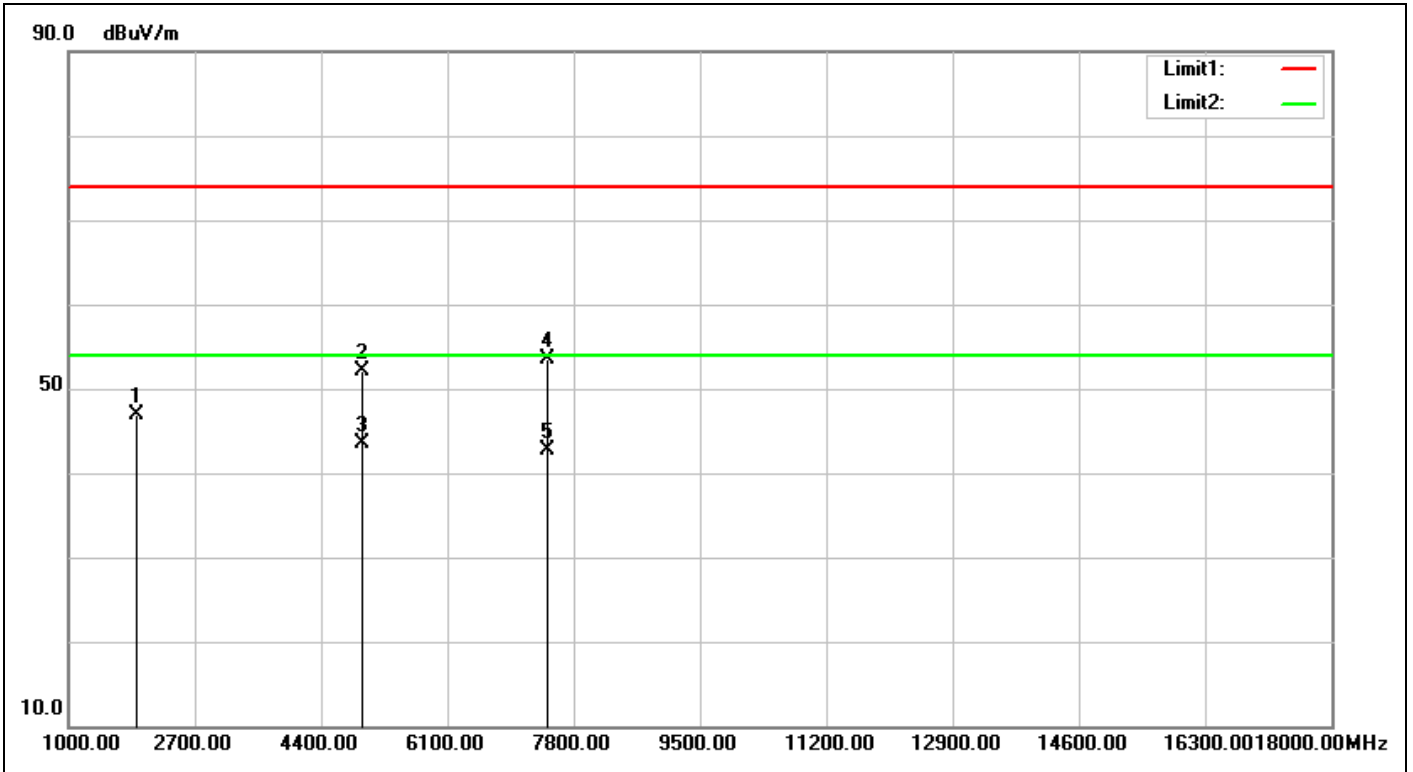
<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 09:49:36</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1918.000	-5.67	53.86	48.19	74.00	-25.81	peak	100	139	
2	4880.000	0.66	52.97	53.63	74.00	-20.37	peak	100	358	
3	4880.000	0.66	44.16	44.82	54.00	-9.18	AVG	100	358	
4	7320.000	9.45	43.70	53.15	74.00	-20.85	peak	100	236	
5	7320.000	9.45	33.20	42.65	54.00	-11.35	AVG	100	236	



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 09:54:53</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2480-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1935.000	-5.54	51.02	45.48	74.00	-28.52	peak	100	257	
2	4960.000	0.90	49.52	50.42	74.00	-23.58	peak	100	113	
3	7440.000	9.79	44.10	53.89	74.00	-20.11	peak	100	166	
4	7440.000	9.79	32.96	42.75	54.00	-11.25	AVG	100	166	



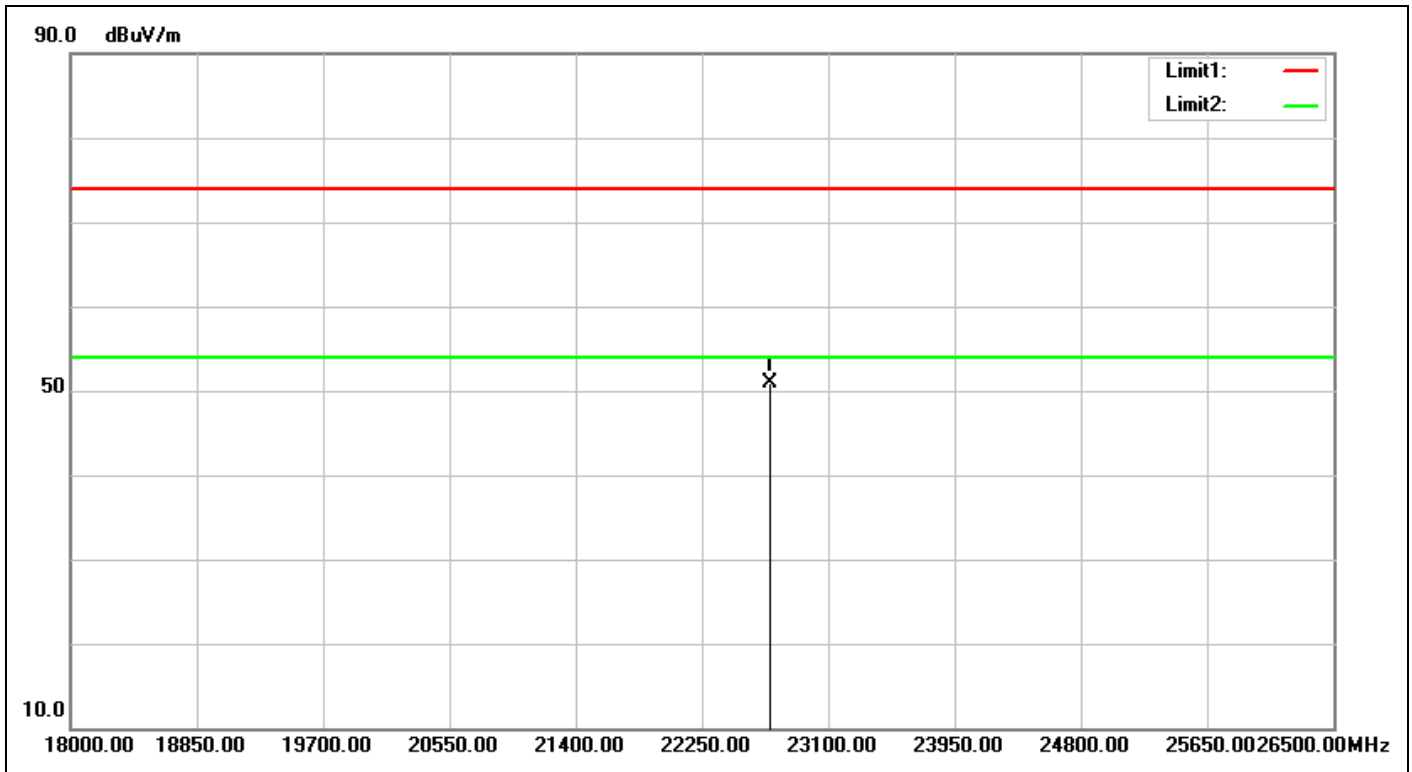
<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 09:56:55</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2480-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1918.000	-5.67	52.61	46.94	74.00	-27.06	peak	100	131	
2	4960.000	0.90	51.30	52.20	74.00	-21.80	peak	100	322	
3	4960.000	0.90	42.53	43.43	54.00	-10.57	AVG	100	322	
4	7440.000	9.79	43.80	53.59	74.00	-20.41	peak	100	319	
5	7440.000	9.79	32.82	42.61	54.00	-11.39	AVG	100	319	

# Spurious Emissions, TX Mode, 18-26G

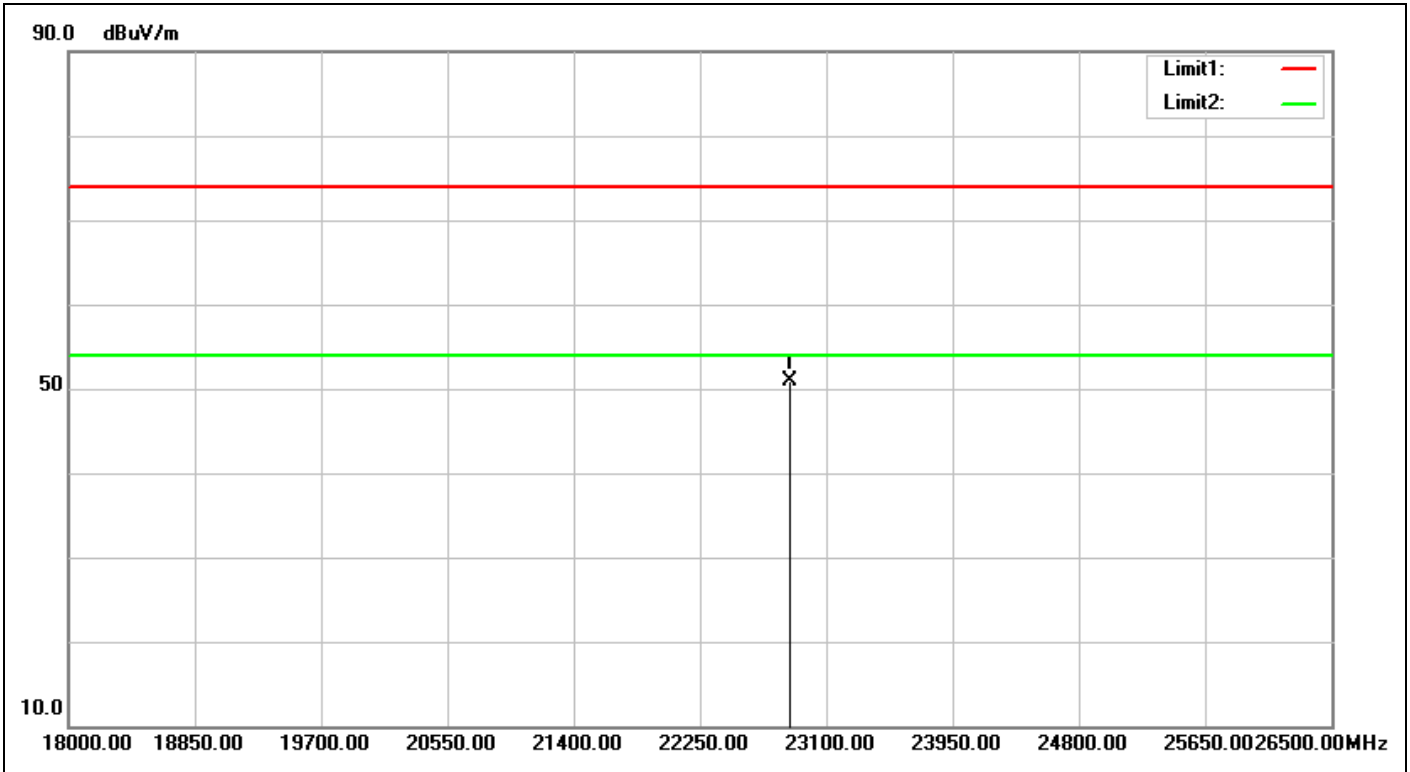


**TUV Rheinland Taiwan Ltd.**  
 11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105  
 Tel:+886-2172-7000 fax:+886-2528-0018



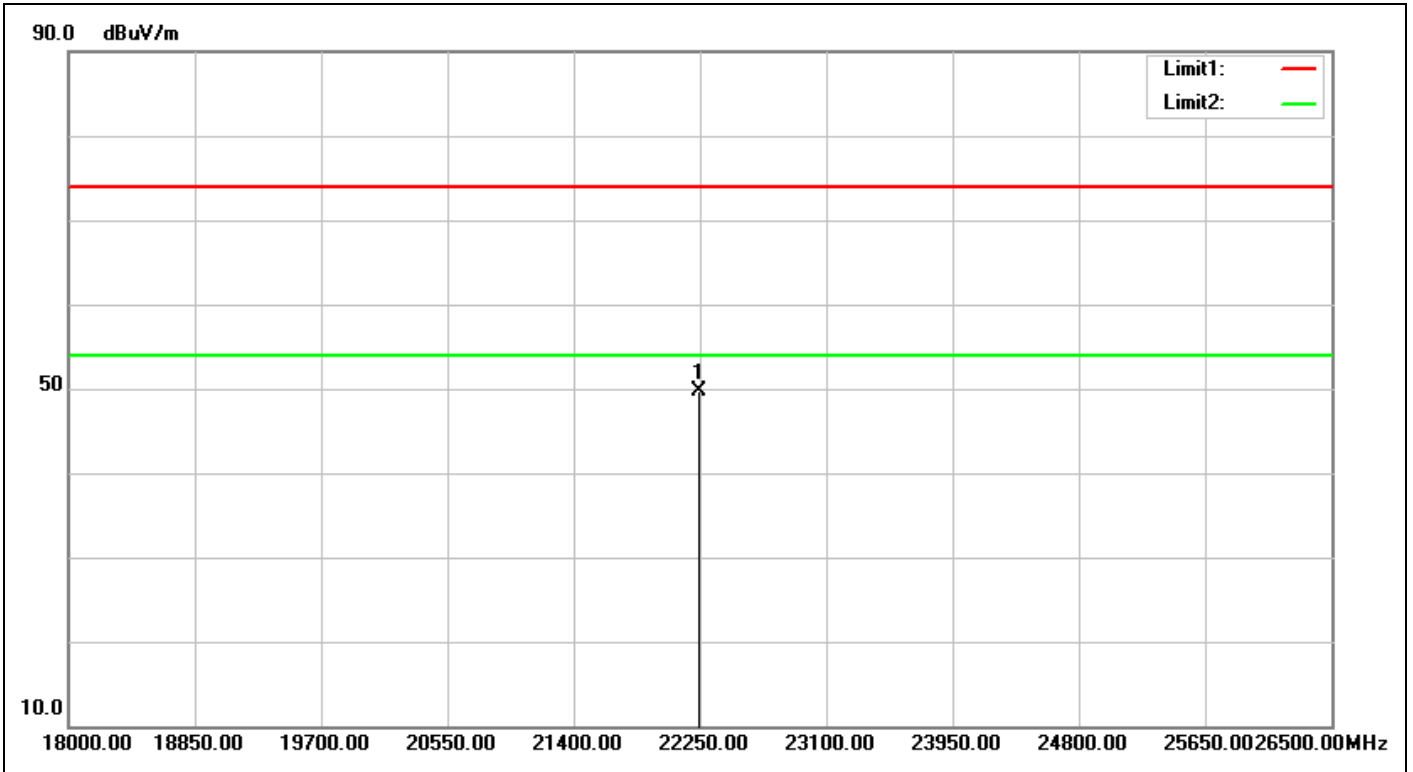
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<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 13:34:39</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2402-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22709.000	32.27	18.66	50.93	74.00	-23.07	peak	100	138	



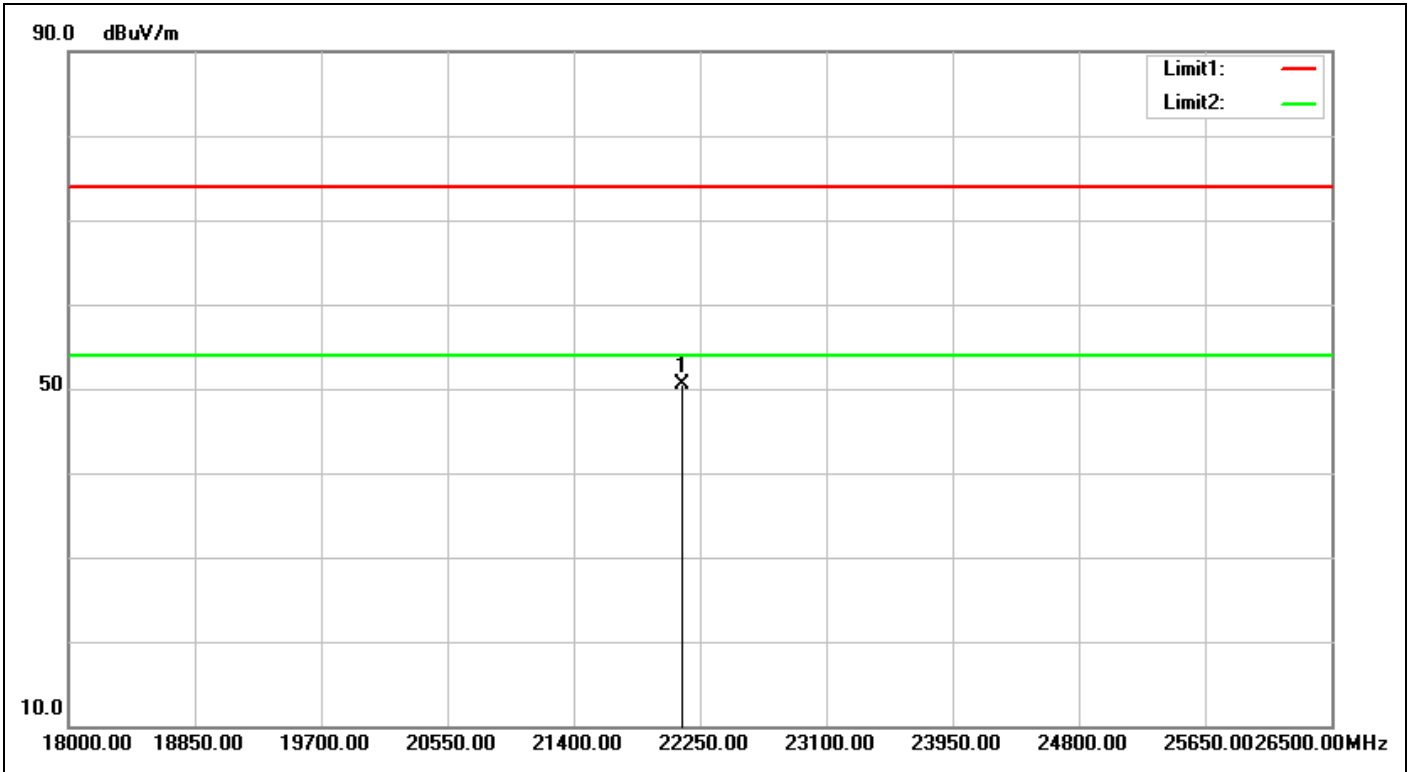
<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 13:35:42</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2402-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22853.500	32.18	18.68	50.86	74.00	-23.14	peak	100	251	



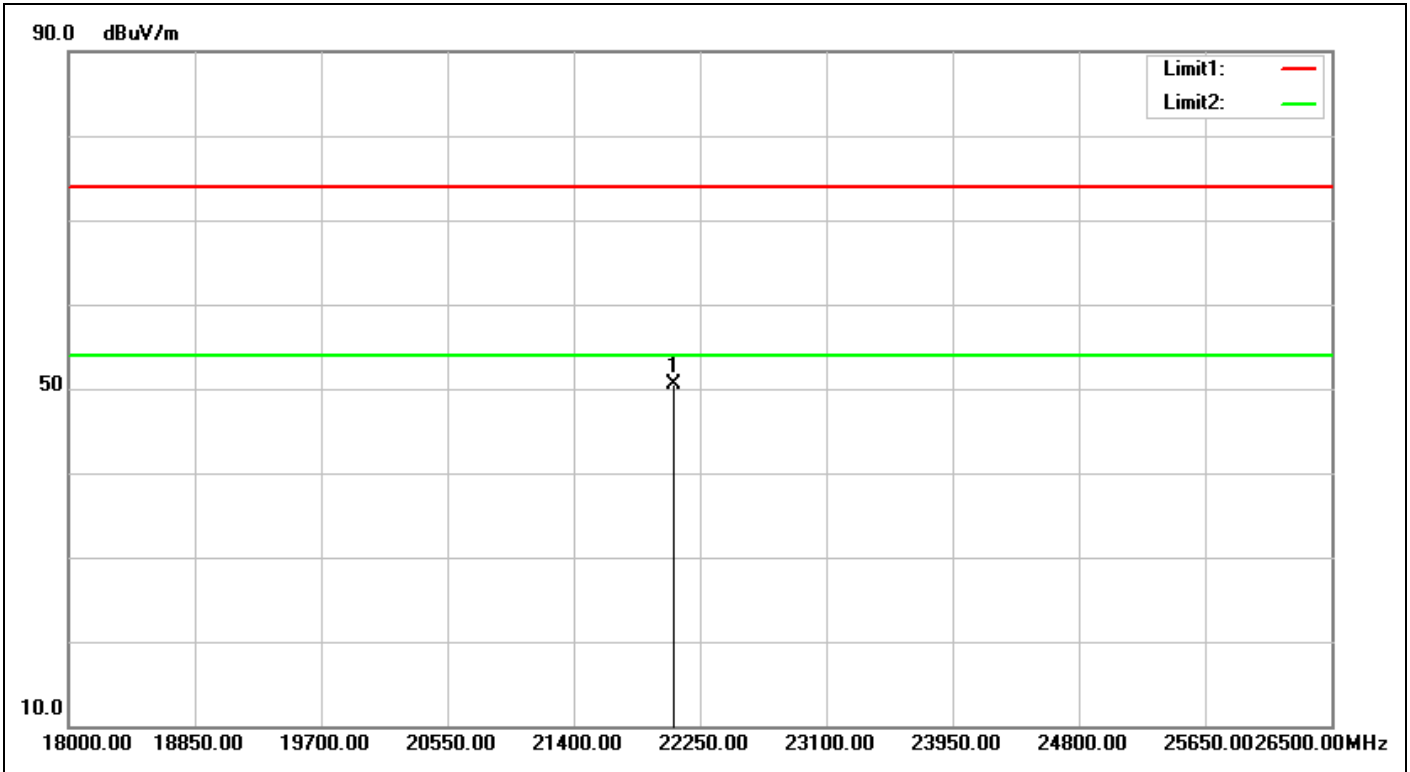
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<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 13:37:30</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22241.500	32.53	17.15	49.68	74.00	-24.32	peak	100	279	



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 13:38:33</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

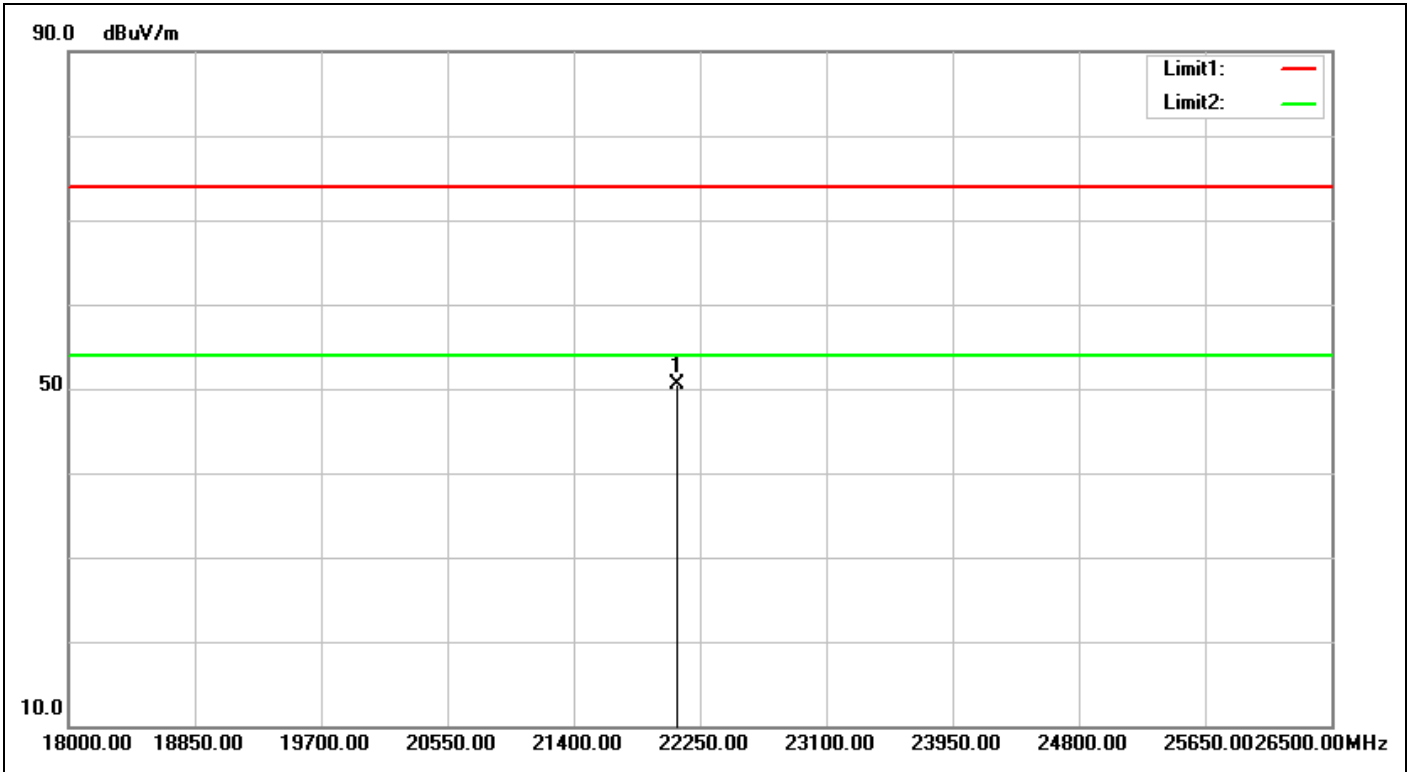
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22131.000	32.59	18.01	50.60	74.00	-23.40	peak	100	327	



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 13:40:06</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2480-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22071.500	32.64	17.79	50.43	74.00	-23.57	peak	100	249	





<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 13:41:08</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2480-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22097.000	32.62	17.79	50.41	74.00	-23.59	peak	100	83	

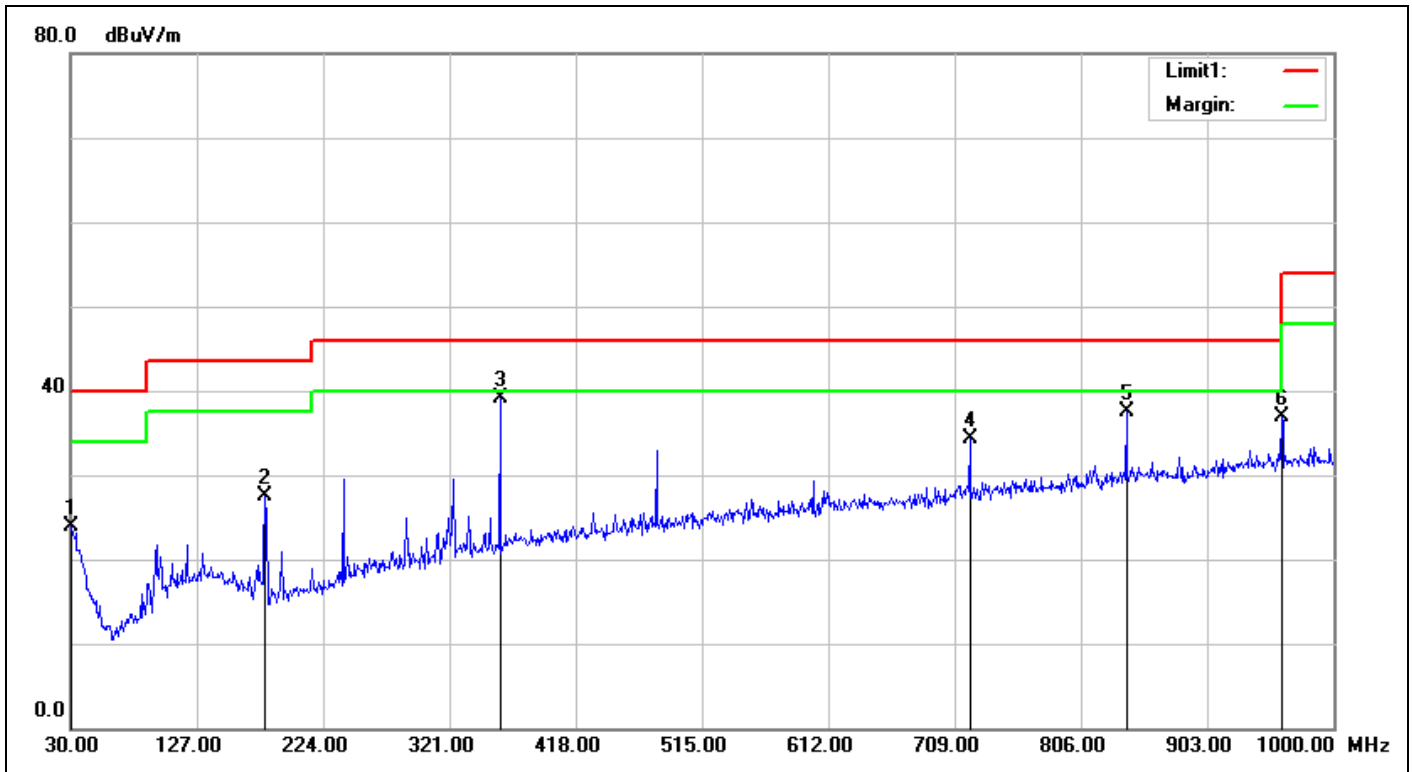
# Spurious Emissions, TX Mode, 30M-1G



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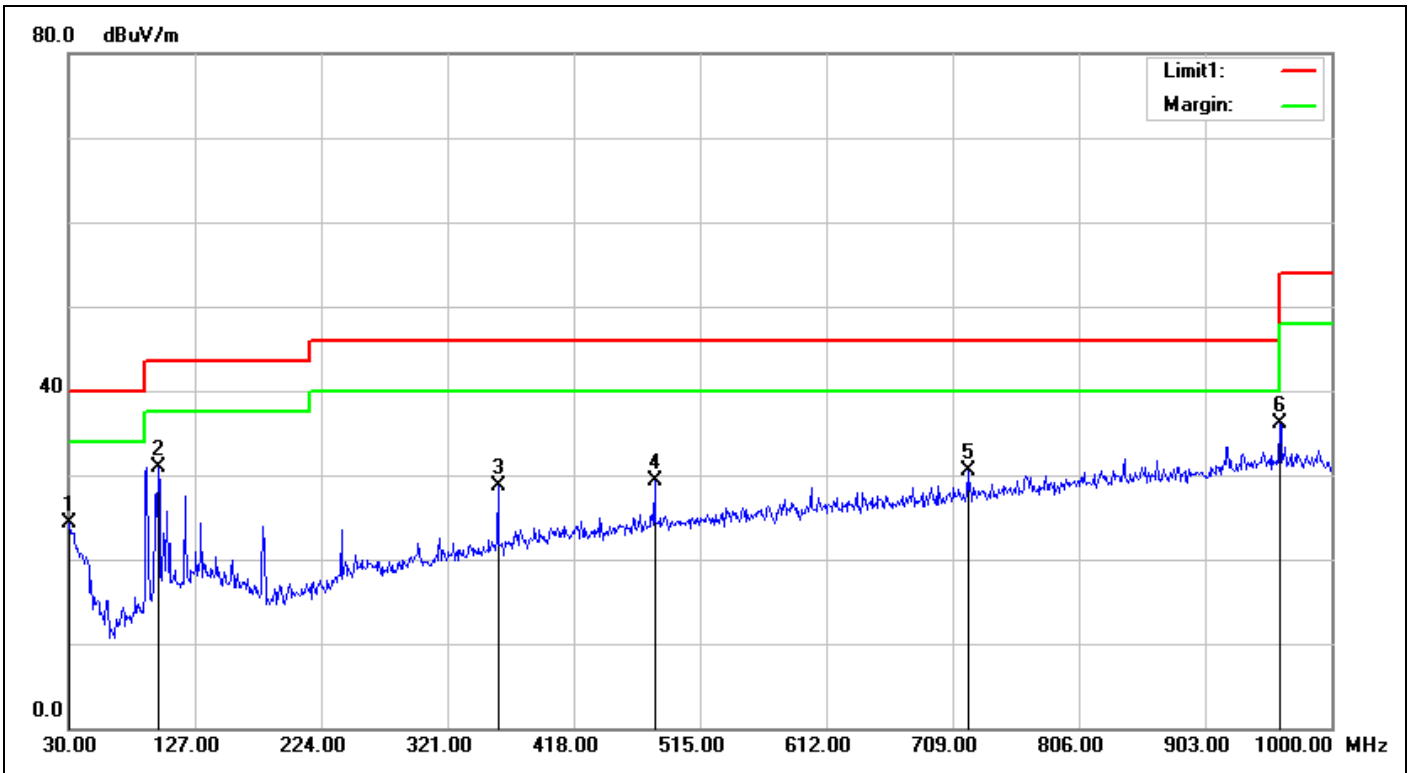
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 09:05:26</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.9700	-1.80	25.73	23.93	40.00	-16.07	QP	400	354	
2	179.3800	-10.68	38.22	27.54	43.50	-15.96	QP	300	146	
3	359.8000	-4.28	43.42	39.14	46.00	-6.86	QP	100	277	
4	720.6400	0.71	33.52	34.23	46.00	-11.77	QP	100	218	
5	840.9200	3.05	34.37	37.42	46.00	-8.58	QP	200	218	
6	960.2300	5.11	31.82	36.93	54.00	-17.07	QP	200	146	



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 09:10:30</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.9700	-1.80	26.15	24.35	40.00	-15.65	QP	100	128	
2	98.8700	-10.81	41.75	30.94	43.50	-12.56	QP	200	210	
3	359.8000	-4.28	32.93	28.65	46.00	-17.35	QP	100	94	
4	480.0800	-2.48	31.74	29.26	46.00	-16.74	QP	100	264	
5	720.6400	0.71	29.72	30.43	46.00	-15.57	QP	150	243	
6	960.2300	5.11	31.06	36.17	54.00	-17.83	QP	100	323	

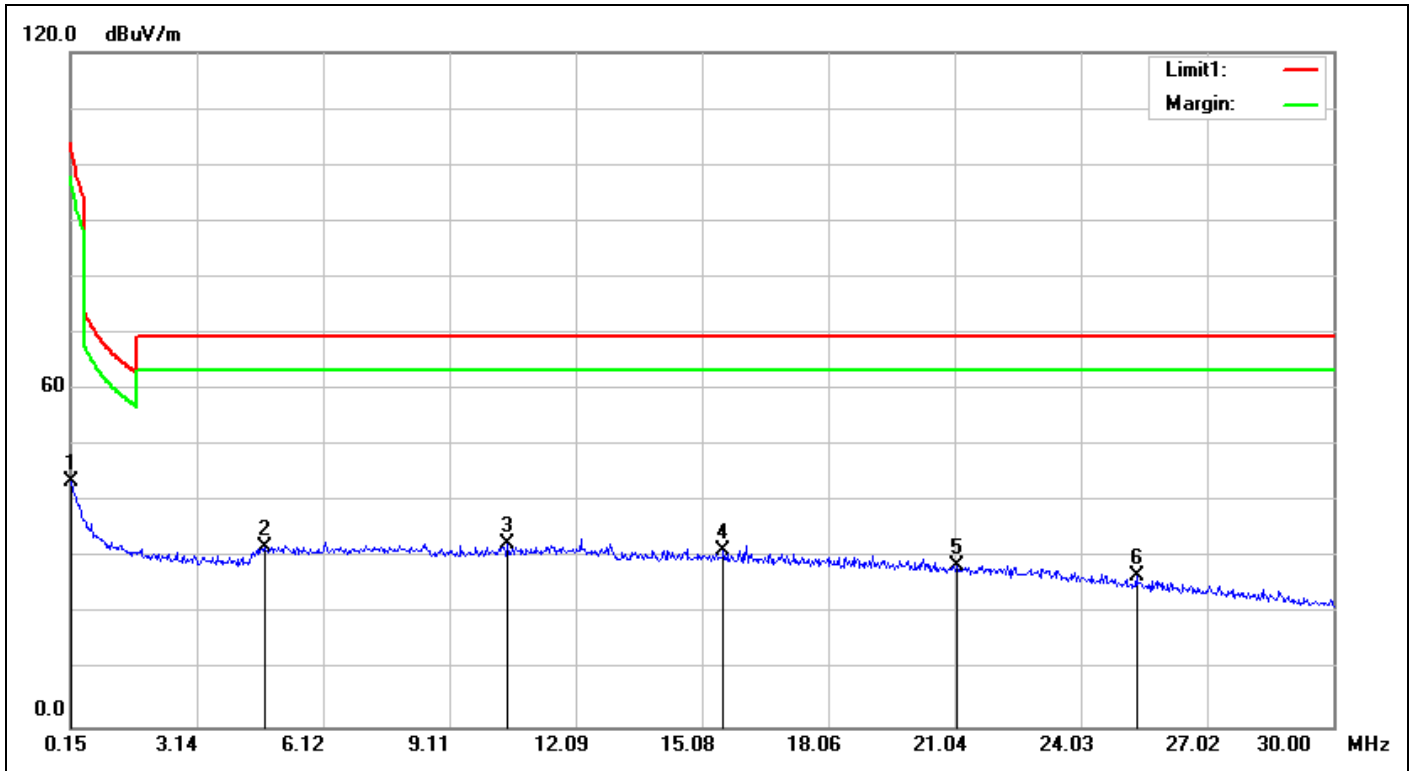
# Spurious Emissions, TX Mode, 150K-30M



**TUV Rheinland Taiwan Ltd.**

11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC15.209_9k-1G_3m</b>	<b>Ant. Polarization:</b>	
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 08:43:22</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1799	19.06	24.68	43.74	102.50	-58.76	QP	100	214	
2	4.7469	19.60	12.38	31.98	69.50	-37.52	QP	100	176	
3	10.4781	20.30	12.15	32.45	69.50	-37.05	QP	100	132	
4	15.5825	21.21	10.14	31.35	69.50	-38.15	QP	100	309	
5	21.1047	22.06	6.68	28.74	69.50	-40.76	QP	100	295	
6	25.3434	22.34	4.47	26.81	69.50	-42.69	QP	100	168	

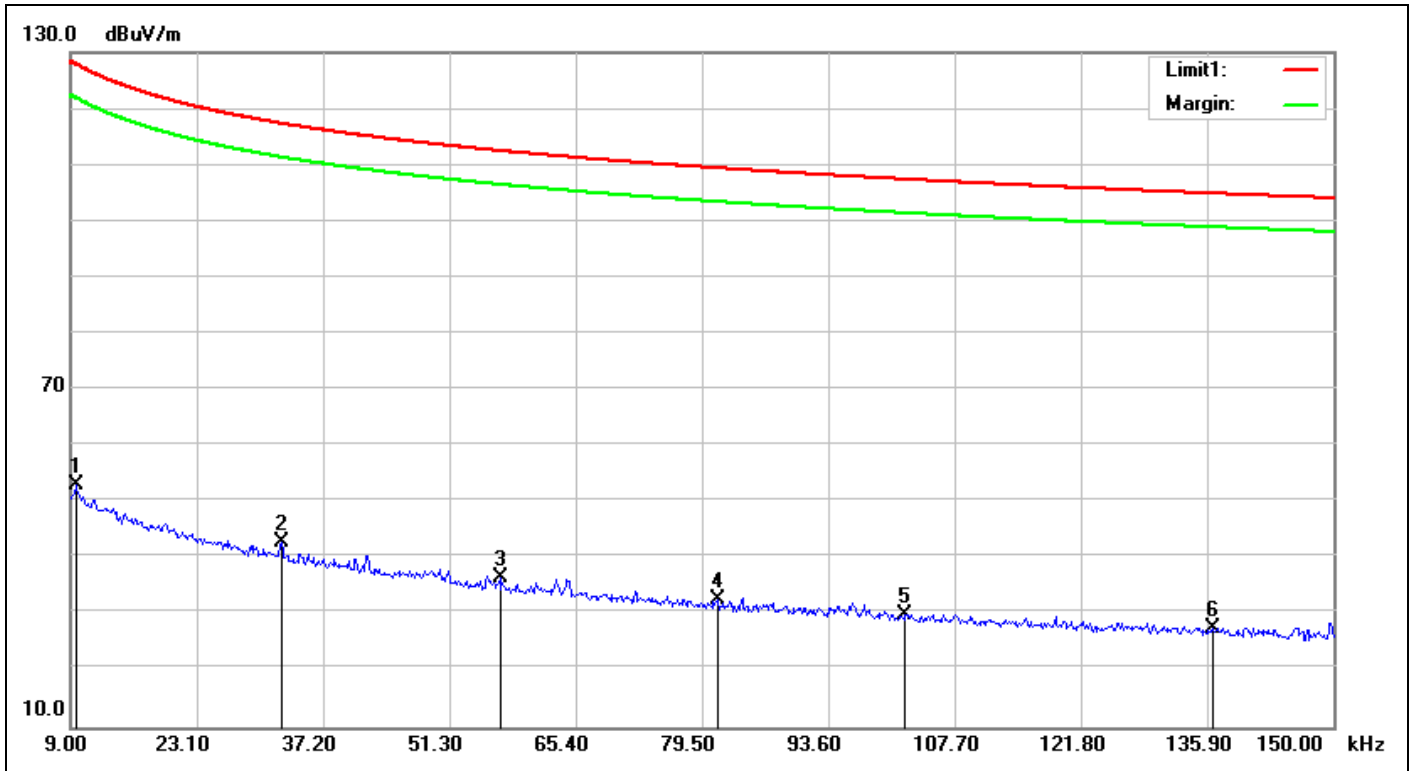
# Spurious Emissions, TX Mode, 9K-150K



**TUV Rheinland Taiwan Ltd.**

11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC15.209_9k-1G_3m</b>	<b>Ant. Polarization:</b>	
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 08:40:56</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Tx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0096	19.77	33.34	53.11	127.94	-74.83	QP	100	258	
2	0.0325	20.04	22.85	42.89	117.35	-74.46	QP	100	201	
3	0.0569	19.39	17.18	36.57	112.49	-75.92	QP	100	195	
4	0.0812	19.24	13.47	32.71	109.40	-76.69	QP	100	134	
5	0.1022	19.13	10.94	30.07	107.41	-77.34	QP	100	216	
6	0.1366	19.09	8.58	27.67	104.89	-77.22	QP	100	226	

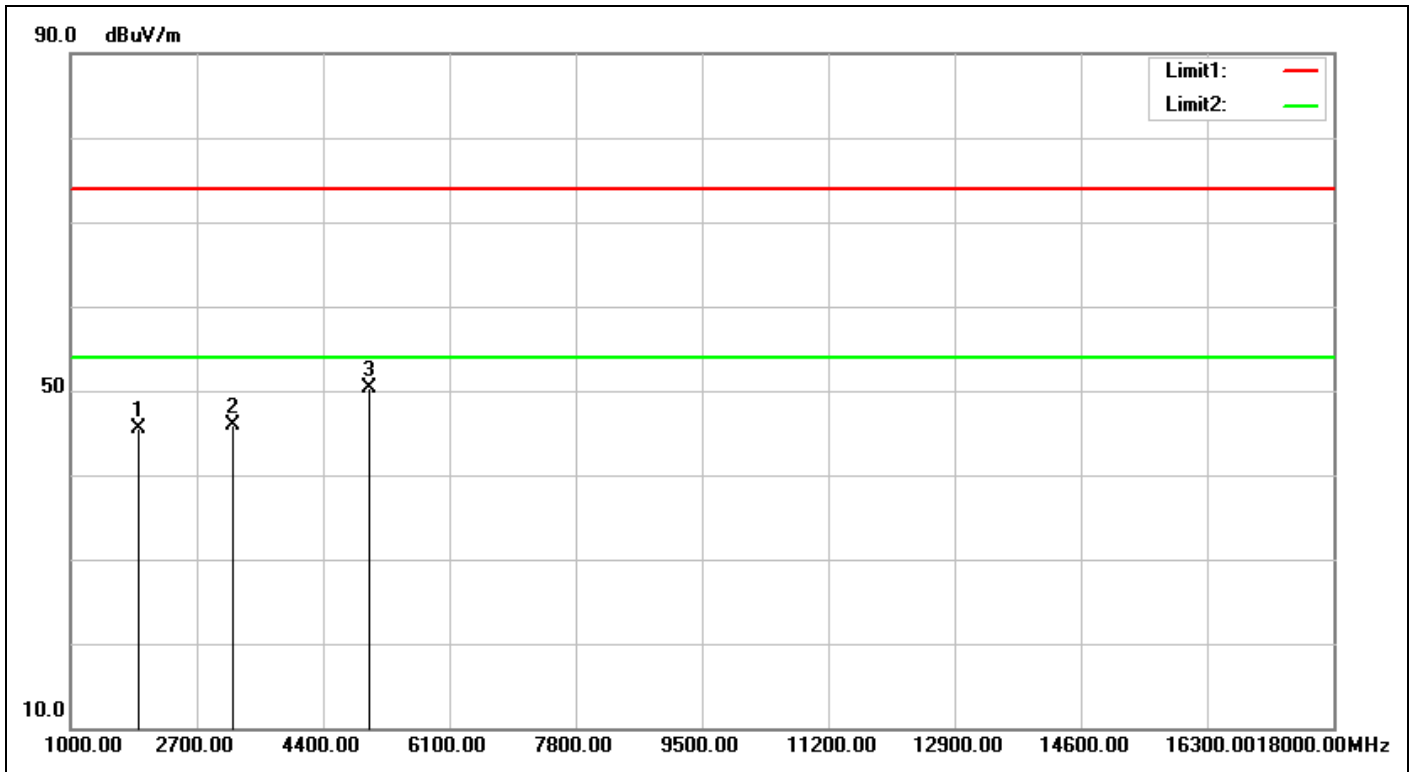
# Spurious Emissions, RX Mode, 1-18G



**TUV Rheinland Taiwan Ltd.**

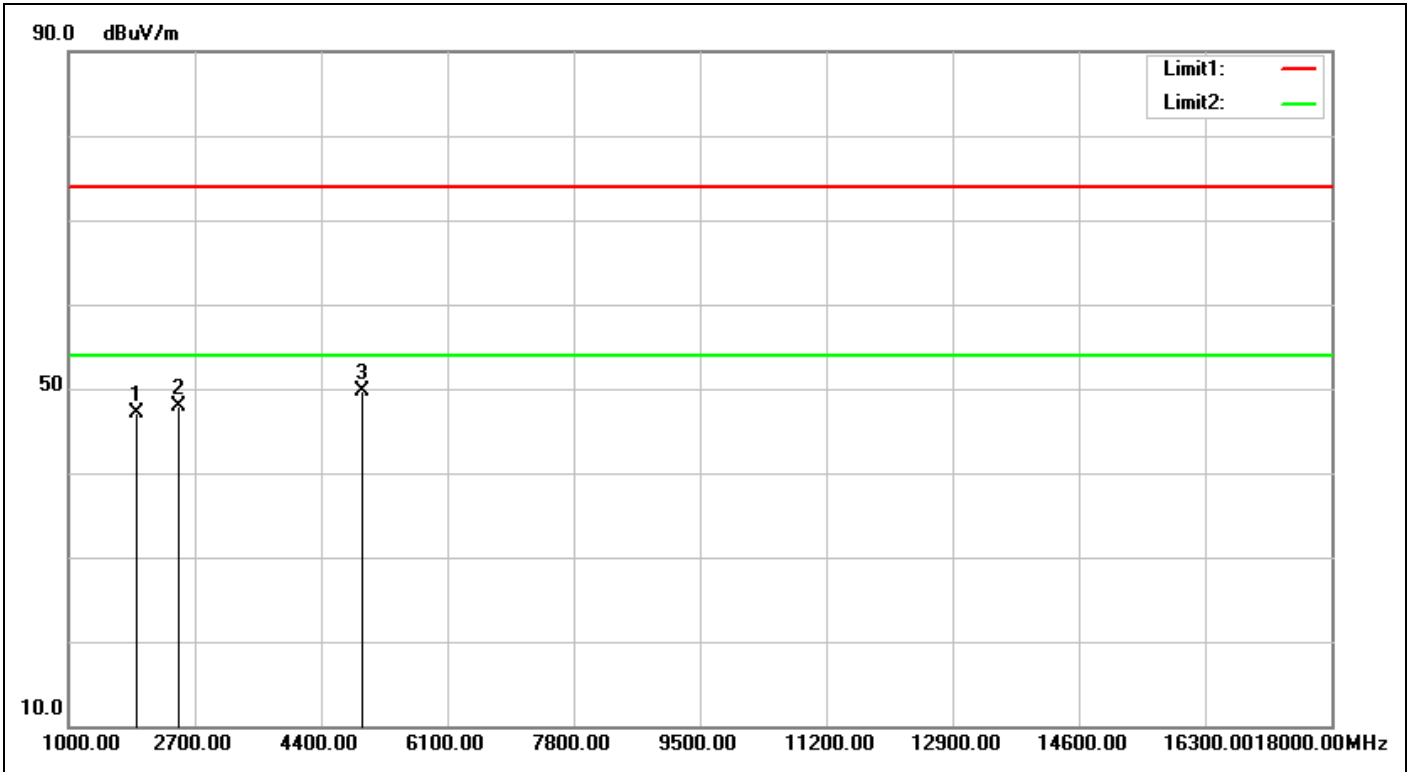
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>11406608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 10:05:16</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Rx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1918.000	-6.63	52.21	45.58	74.00	-28.42	peak	100	213	
2	3176.000	-4.50	50.39	45.89	74.00	-28.11	peak	100	199	
3	5029.000	0.13	50.17	50.30	74.00	-23.70	peak	100	301	



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 10:07:18</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Rx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1918.000	-6.63	53.66	47.03	74.00	-26.97	peak	100	131	
2	2479.000	-5.84	53.65	47.81	74.00	-26.19	peak	100	156	
3	4944.000	-0.11	49.86	49.75	74.00	-24.25	peak	100	92	

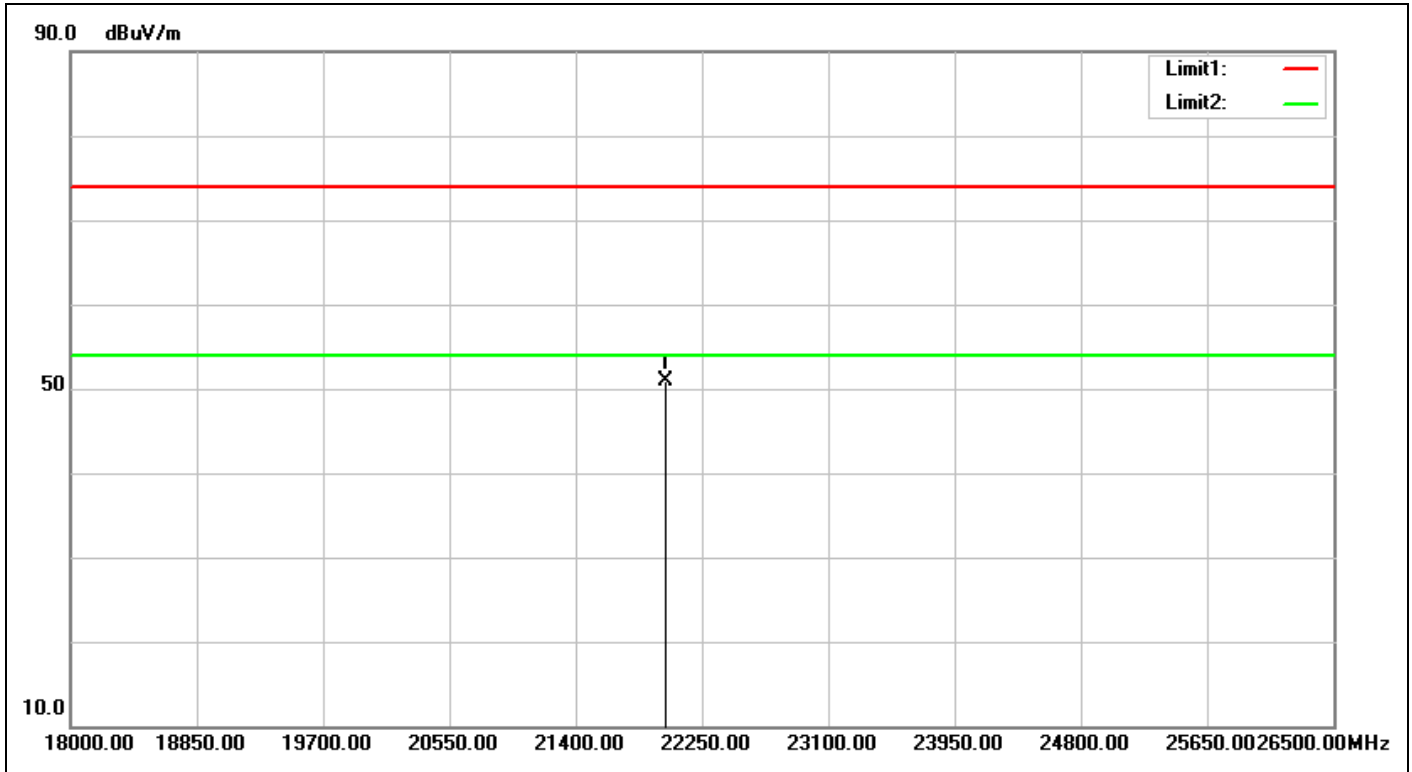
# Spurious Emissions, RX Mode, 18-26G



**TUV Rheinland Taiwan Ltd.**

11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

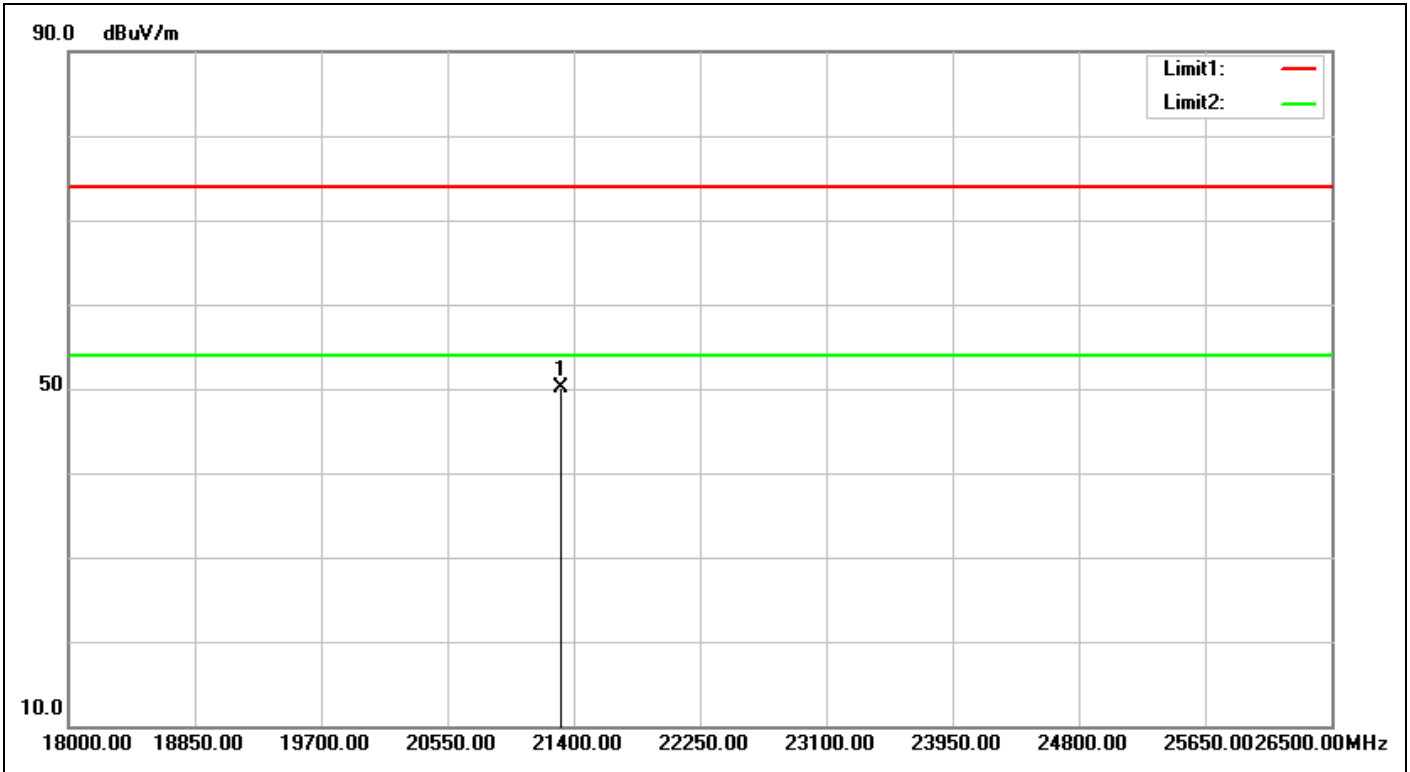
Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 13:28:29</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Rx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22003.500	32.67	18.17	50.84	74.00	-23.16	peak	100	282	





<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 13:29:32</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Rx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21315.000	31.93	18.12	50.05	74.00	-23.95	peak	100	37	

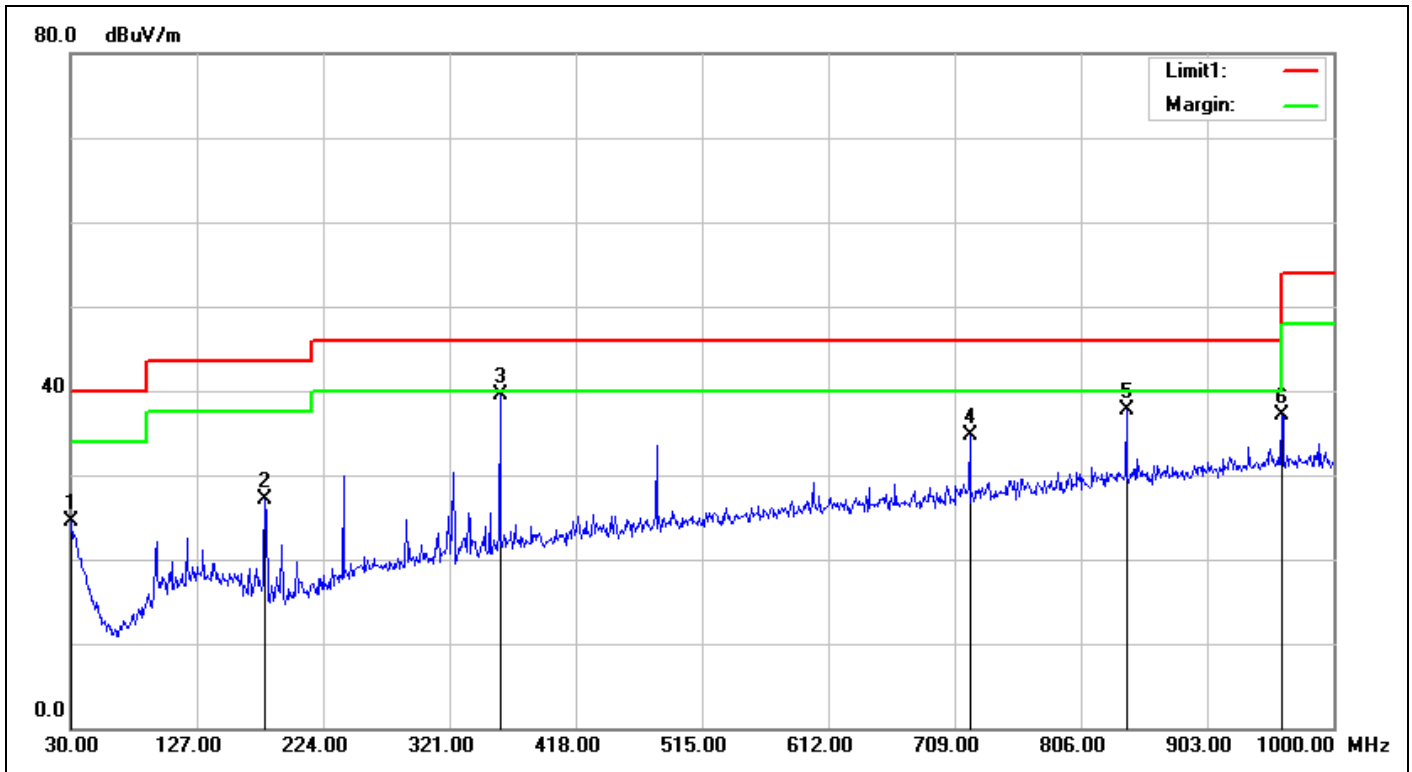
# Spurious Emissions, RX Mode, 30M-1G



**TUV Rheinland Taiwan Ltd.**

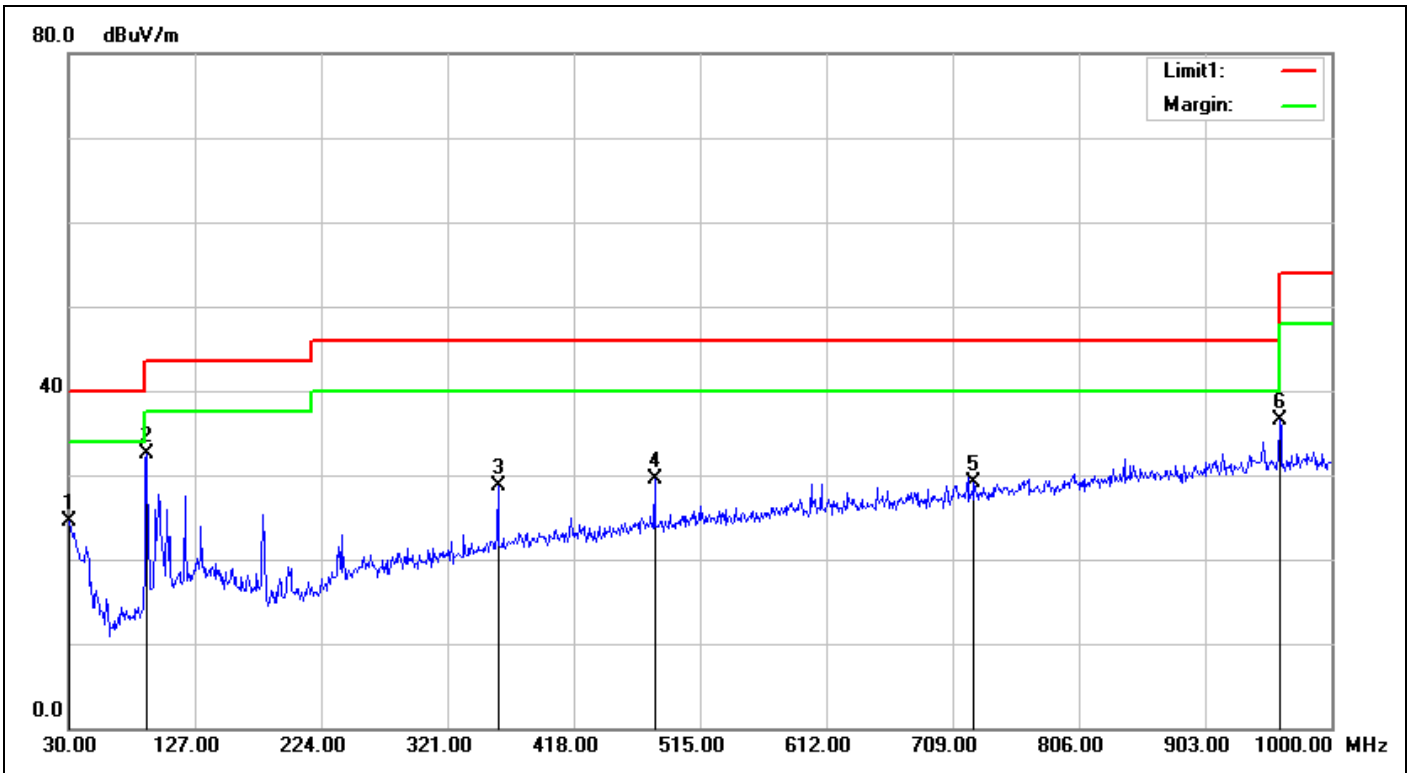
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 08:54:18</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Rx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.9700	-1.80	26.38	24.58	40.00	-15.42	QP	400	61	
2	179.3800	-10.68	37.88	27.20	43.50	-16.30	QP	100	162	
3	359.8000	-4.28	43.82	39.54	46.00	-6.46	QP	100	277	
4	720.6400	0.71	33.90	34.61	46.00	-11.39	QP	100	208	
5	840.9200	3.05	34.73	37.78	46.00	-8.22	QP	300	213	
6	960.2300	5.11	31.90	37.01	54.00	-16.99	QP	200	151	



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 08:59:21</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Rx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-1.32	25.90	24.58	40.00	-15.42	QP	200	358	
2	90.1400	-12.09	44.67	32.58	43.50	-10.92	QP	100	211	
3	359.8000	-4.28	32.92	28.64	46.00	-17.36	QP	200	67	
4	480.0800	-2.48	32.01	29.53	46.00	-16.47	QP	124	262	
5	725.4900	0.84	28.17	29.01	46.00	-16.99	QP	100	123	
6	960.2300	5.11	31.40	36.51	54.00	-17.49	QP	100	315	

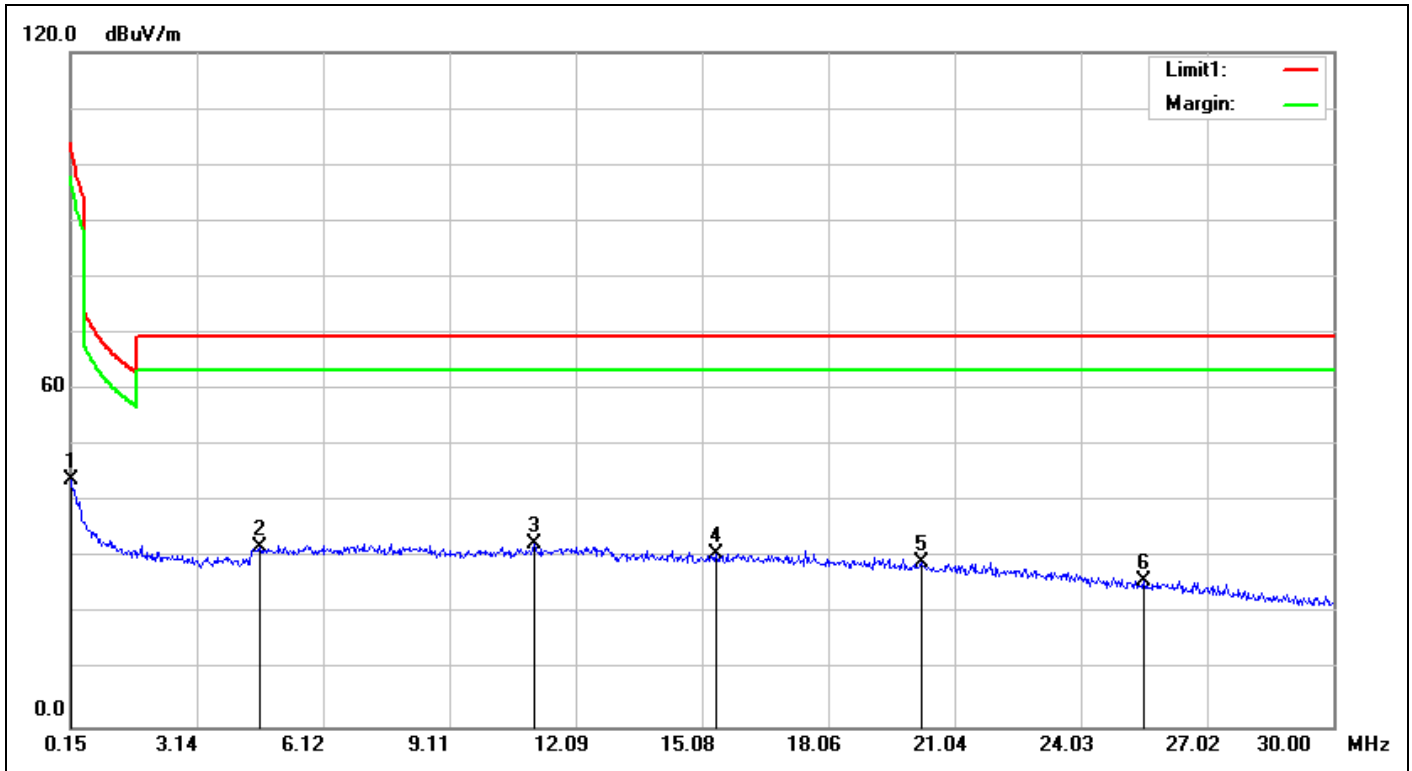
# Spurious Emissions, RX Mode, 150K-30M



**TUV Rheinland Taiwan Ltd.**

11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC15.209_9k-1G_3m</b>	<b>Ant. Polarization:</b>	
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 08:51:25</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Rx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1500	19.08	24.82	43.90	104.08	-60.18	QP	100	204	
2	4.6275	19.53	12.41	31.94	69.50	-37.56	QP	100	325	
3	11.1050	20.42	12.06	32.48	69.50	-37.02	QP	100	132	
4	15.4034	21.18	9.69	30.87	69.50	-38.63	QP	100	106	
5	20.2689	22.01	7.29	29.30	69.50	-40.20	QP	100	92	
6	25.5225	22.35	3.75	26.10	69.50	-43.40	QP	100	117	

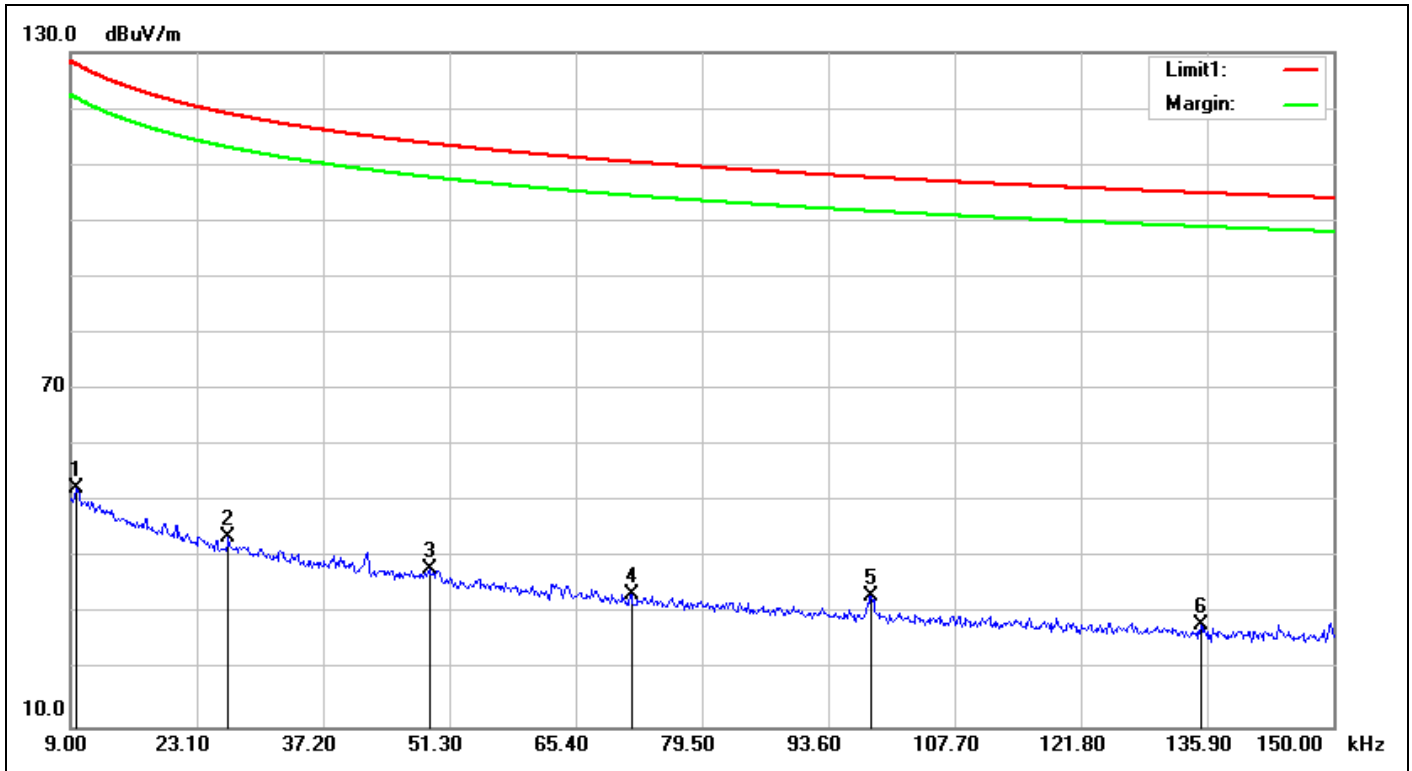
# Spurious Emissions, RX Mode, 9K-150K



**TUV Rheinland Taiwan Ltd.**

11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114066608</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC15.209_9k-1G_3m</b>	<b>Ant. Polarization:</b>	
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2017/8/11 08:48:05</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24.2(°C)/49%</b>
<b>Model No.:</b>	<b>BM64SPK1NC2</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>2440-Rx</b>		
<b>Remark:</b>	<b>Class 2 ; Shield</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0097	19.81	32.77	52.58	127.85	-75.27	QP	100	207	
2	0.0266	20.10	23.52	43.62	119.09	-75.47	QP	100	314	
3	0.0490	19.47	18.53	38.00	113.79	-75.79	QP	100	192	
4	0.0716	19.30	14.35	33.65	110.50	-76.85	QP	100	136	
5	0.0984	19.14	14.14	33.28	107.74	-74.46	QP	100	105	
6	0.1352	19.09	8.92	28.01	104.98	-76.97	QP	100	68	